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International Preliminary Examining

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Our ref.: OZOKI/P3843

Your ref.: PCT/PL03/00007

Warszawa, January 23, 2004

**Re: Amendments under Article 34(2) PCT in response to the Second Written Opinion
of the international patent application PCT/PL03/00007 (WO 03/064271 A2)
in the name of: "HTL STREFA" Sp. z o.o. et al.**

CONFIRMATION COPY

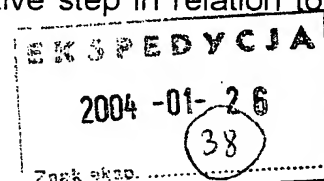
Dear Sirs,

In relation to the Second Written Opinion issued by the International Preliminary Examining Authority and mailed on 21 November 2003, we transfer herewith a set of claims amended under Article 34(2) of the Patent Cooperation Treaty as well as the applicant's explanations of reasons for the amendments.

The applicant's explanations of reasons for the amendments in the claims

According to the applicant a subject of the application fulfil the requirements of Article 33(1) PCT and, particularly, fulfil the requirements relating to novelty of the subject. The Examiner confirmed it in the second written opinion in words: "the subject-matter of claim 1 is new over the disclosure of D1 ..." (D1: US-B1-6 286 678).

Moreover, the subject of the application meets, in the opinion of the applicant, the requirements of Article 33 (3) PCT of involving an inventive step in relation to documents D1-D4 cited in the second written opinion.



The opposed document D1 discloses a refill pack for pipette tip arrays, which comprises a typical pipette tip rack 22, a rectangular support plate 14 for pipette tips 26 and a cover 32. The cover 32 is generally dome-shaped and is formed as a whole of thin, lightweight flexible plastic material. The cover 32 has flexible top 34 and is formed with contiguous side members 36, wherein in the side members 36 are formed releasable means 40 with inwardly extending protrusions 42 for supporting the support plate 14, as it is depicted in FIGS. 2A, 2B of document D1.

The container according to our application comprises a special base 1 for setting a tray 19 with tips 21 and a cover being a tray feeder 2, which together constitute a pipette tip container formed of plastic material. In the container, only the feeder 2 has elastic holders 27, 28 and elastic links 29, 30. The elastic holders 27, 28 are situated on opposite side walls 23, 24 of the feeder 2, preferably in middle portions of the side walls 23, 24, and are declined sideways. The elastic links 29, 30 are situated between the side walls 23, 24 and the elastic holders 27, 28 and are, essentially, thin. In the container according to the application, lower edges of wedge-shaped projections 31, 32 abut against opposite side walls 3, 5 of the base 1, what in the case when the feeder 2 is pressed downwards causes that only the elastic holders 27, 28 are declined sideways and the tray 19 with tips 21 is released from the feeder 2 and is set in the base 1. In the case when the cover constitutes the feeder 2, the tray 19 with tips 21 is supported in the feeder 2 on upper edges of the wedge-shaped projections 31, 32.

It should be emphasised that in the solution of the container according to the application the essence is that the base 1 of the container as well as the feeder 2 that constitutes the cover of the container, are fitted mutually to each other and together constitute stiff, tight enough container for pipette tips. That is the reason why the wedge-shaped projections 31, 32 are situated on inner side of the elastic holders 27, 28 and are provided with the lower and upper edges executing the above described functions. Moreover, the necessity of applying the elastic links 29, 30 has induced that grooves 13, 14 for elastic links 29, 30, which are disposed in the opposite side walls 3, 5 of the base 1, were placed in the base 1. The necessity of applying the protruding downwards corners 15, 16, 17, 18 of the feeder 2 induced that cooperating with them and protruding above top surface of the base 1 corner guides 7, 8, 9, 10 of the base 1 were placed in the base 1. In the solution in question, the upper portion 22 of the feeder 2 is stiff and in the result thereof a parallel mutual configuration of the pipette tips 21 in feeder 2 as well as a perpendicular configuration of the pipette tips 21 in relation to the tray 19 in feeder 2 are assured. This feature of the subject-matter solution is particularly relevant for long pipette tips, which

extend above protruding above top surface of the base 1 corner guides 7, 8, 9, 10. Stable and perpendicular setting of the tips 21 in the tray 19 enables that the tray 19 with tips 21 can be by means of the corner guides 7, 8, 9, 10 easily introduced into the container.

Compact construction of the container enables that sterilization of the container simultaneously with the sterilization of the pipette tips placed in it is possible. Sterilization causes emasculation of the pipette tips and the container material and elimination of microbes and viruses. One of methods to make medical and laboratory material sterile is autoclaving, i.e. thermal sterilization by means of air saturated with water vapour. Thermal sterilization by means of air saturated with water vapour in case of products made of plastic material, *inter alia* pipette tips, is executed in temperature of 121°C and during 20 minutes.

Thus, the container according to the present invention enables to solve the technical problem what consists in autoclaving the pipette tips in the container and then in using the cover of the container as the feeder of the trays with the autoclaved tips. This is impossible in solution of document D1.

Illustrated in FIGS. 1 and 3 of document D2 (D2: GB-A-1 522 128) the grooves in the side walls of the tray are disposed to fit the cover 10 with a plurality of keys 40 on the tray 20 or 30 in specific orientation. Whereas, in our invention, the grooves 13, 14 in the opposite side walls 3, 5 of the base 1 constitute crucial constructional feature complementary to the elastic links 29, 30 of the feeder 2 according to the invention in question.

The container of the pipette tips according to the invention in question may be applied also for other than typical tips as it is illustrated in FIGS. 3 and 6.

When in the container the short tips 33 are placed as illustrated in FIGS. 7 and 8, the tray 19 has the rings 34 around holes. Inner diameters of the rings 34 are equal with diameters of the holes and the short tips 33 are set on the upper edges of the rings 34 (the claim 3).

When in the container the long tips 35 are placed as illustrated in FIGS. 9 and 10 and the flange outside diameter dimension of the tips 35 is close to the spacing of holes in the tray 19, the upper portion 22 of the feeder 2 has internal stabilising ring 36, which surrounds all upper portions of long tips 35 (the claim 4). The conical projection 36 illustrated in FIG. 1b of document D3 is not an internally directed stabilising ring 36 of the invention in question. The conical projection 36 of document D3 enables stabilization only one typical pipette tips.

Moreover, as illustrated in FIGS. 9, for the long tips 35, which have longer lower parts, the additional bottom base 37 in the base 1 is provided to house entire tips 35 (the claim 5). While, the cover member 43 as illustrated in FIGS. 6 of the opposed document D4

(US-A-4 349 109) is adapted only to close both bottom and upper part of a stack of trays 32 with pipette tips 20.

The constructional features claimed in the claims 3, 4 and 5 broaden possibilities of using the container according to the invention in question for autoclaving and then for transfer different pipette tips and not only typical pipette tips.

The amendments introduced into the patent claims

There are following differences between the patent claims previously amended under Article 19(1) of the PCT and the patent claims as amended under Article 34(2) of the PCT:

⇒ the claim 1 replaces the previously amended according to Article 19(1) PCT claim 1,
the claims 2-5 are unchanged.

The International Preliminary Examining Authority of the PCT proceeding is hereby requested to include these amendments under Article 34(2) to the documentation of the above mentioned international application PCT/PL03/00007 in the course of the international PCT procedure and to take it into account as a basis for further examination.

We would kindly like to ask The International Preliminary Examining Authority for drawing up another Written Opinion basing on the amendments under Article 34(2) in the case when the Authority recognize making such comments at this stage of the PCT procedure as essential for the Applicant.

At the same time we would kindly like to inform you that with the letter of December 29, 2003, which was addressed to the International Bureau of WIPO, 34, chemin des Colombettes, 1211 Geneva 20, Switzerland, the request for the change of the applicant of the a/m international patent application was filled.

PCT/RO/113 Form and new Power of Attorney signed by the new applicant, namely by **"PZ HTL" Spółka Akcyjna**, and appointing us as an agent of the new applicant were enclosed therewith.

Yours faithfully



Elżbieta Słomczyńska

Patent Attorney

Encl.: the patent claims as amended under Article 34(2) of the PCT – 2 pages

Claims amended under Article 34(2)(b)

1. Pipette tip container comprising a base (1) for setting a tray (19) with tips (21) and a cover being a tray feeder (2), wherein

the feeder (2) has on opposite side walls (23, 24) elastic holders (27, 28) and

the elastic holders (27, 28) have on inner side wedge-shaped projections (31, 32) and

on upper edges of the wedge-shaped projections (31, 32) the tray (19) with tips (21) is supported,

characterised in that

the feeder (2) comprises elastic links (29, 30) between side walls (23, 24) and the elastic holders (27, 28) and

the base (1) comprises in opposite side walls (3, 5) grooves (13, 14) for the elastic links (29, 30) of the feeder (2), wherein

lower edges of the wedge-shaped projections (31, 32) abut against the opposite side walls (3, 5) of the base (1).

2. The container according to the claim 1, **characterised in that** the feeder (2) has protruding downwards corners (15, 16, 17, 18), which cooperate

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with protruding above top surface of the base (1) corner guides (7, 8, 9, 10) of this base (1).

3. The container according to the claim 1, **characterised in that** the tray (19) has rings (34) around holes, wherein inside diameters of the rings (34) are equal to diameters of the holes and on upper edges of the rings (34) short tips (33) are set.

4. The container according to the claim 1, **characterised in that** upper portion (22) of the feeder (2) has an inner stabilising ring (36) surrounding upper portions of long tips (35) outside diameter dimension of which is close to the spacing of holes in the tray (19).

5. The container according to the claim 4, **characterised in that** the base (1) has in its lower portion additional bottom base (37) to house lower portions of long tips (35).